

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (currently amended) In a system comprising at least one mobility server, at least one mobile router and a plurality of hosts, a method for mobile network prefix allocation comprising the steps of:

detecting a need for at least one mobile network prefix for a mobile router, wherein each mobile network prefix corresponds to a subnet behind the mobile router and comprises a plurality of internet protocol addresses;

sending a registration request message to a mobility server that includes a request to allocate said at least one mobile network prefix to said mobile router; and

receiving a registration reply responsive to said registration request that includes at least one allocated mobile network prefix, wherein said at least one allocated mobile network prefix is reserved for said mobile router for a first time period.

2. (currently amended) The method of Claim 1, wherein said at least one mobile network prefix is assigned from a pool of available mobile network prefixes.

3. (currently amended) The method of Claim 2, wherein said pool of available mobile network prefixes is pre-allocated to said mobility server.

4. (currently amended) The method of Claim 1, wherein said registration request message further includes a request to allocate said at least one mobile network prefix for said first time period.

5. (original) The method of Claim 1, wherein said first time period is assigned by said mobility server.

6. (original) The method of Claim 5, wherein said first time period is a default time period.

7. (currently amended) The method of Claim 1, wherein said at least one allocated mobile network prefix is identified in said registration request message.
8. (currently amended) The method of Claim 1 further comprising the step of assigning to at least one host coupled to said mobile router at least one corresponding host address based on said at least one allocated mobile network prefix.
9. (original) The method of Claim 8, wherein said at least one corresponding host address is assigned using a Dynamic Host Configuration Protocol.
10. (currently amended) The method of Claim 1 further comprising the step of sending a subsequent registration request to said mobility server that includes a request to reserve said at least one allocated mobile network prefix for a second time period that extends beyond said first time period.
11. (original) The method of Claim 1, wherein said mobility server is a home agent.
12. (currently amended) In a system comprising at least one home agent, at least one mobile router and a plurality of hosts, a method for mobile network prefix allocation comprising the steps of:
 - detecting a need for at least one mobile network prefix for a mobile router, wherein each mobile network prefix corresponds to a subnet behind the mobile router and comprises a plurality of internet protocol addresses;
 - sending a registration request message to a home agent that includes a request to allocate said at least one mobile network prefix to said mobile router; and
 - receiving a registration reply responsive to said registration request that includes at least one allocated mobile network prefix, wherein said at least one allocated mobile network prefix is reserved for said mobile router for a first time period.

13. (currently amended) In a system comprising at least one mobility server, at least one mobile router and a plurality of hosts, a method for mobile network prefix allocation comprising the steps of:

at a mobility server:

receiving a registration request message from a mobile router that includes a request to allocate at least one mobile network prefix to said mobile router, wherein each mobile network prefix corresponds to a subnet behind the mobile router and comprises a plurality of internet protocol addresses;

allocating at least one mobile network prefix to said mobile router; and

sending a registration reply to said mobile router responsive to said registration request that includes said at least one allocated mobile network prefix, wherein said at least one allocated mobile network prefix is reserved for said mobile router for a first time period.

14. (original) The method of Claim 13 further comprising setting a timer for a time equal to said first time period.

15. (currently amended) The method of Claim 14 further comprising returning said at least one allocated mobile network prefix to a pool of available mobile network prefixes upon the expiration of said timer.

16. (currently amended) The method of Claim 15, wherein said pool of available mobile network prefixes is pre-allocated to said mobility server.

17. (currently amended) The method of Claim 13 further comprising the step of advertising reachability via internet protocol (IP) dynamic routing protocols for said at least one allocated mobile network prefix.

18. (original) The method of Claim 13, wherein said mobility server is a home agent.

19. (currently amended) The method of Claim 13, wherein said registration request message further includes a request to allocate said at least one mobile network prefix for said first time period.
20. (original) The method of Claim 13, wherein said first time period is assigned by said mobility server.
21. (original) The method of Claim 20, wherein said first time period is a default time period.
22. (currently amended) The method of Claim 13, wherein said at least one allocated mobile network prefix is identified in said registration request message.
23. (canceled)
24. (canceled)